

REMARKS

Claims 1-11 are all the claims pending in the application.

Regarding the objection to claim 11, claim 11 is hereby amended to make it a purely method type claim. Thus, the objection to claim 11 is believed to be overcome.

Claim 1 stands rejected under Section 102(b) as allegedly being anticipated by Brown, Jr. (U.S. Publication No. 2004/0017289 A1), hereinafter “Brown”. Applicants respectfully traverse the rejection of claim 1 for the reasons explained below. Moreover, claim 11 should be allowable for at least the same reasons as claim 1, and claims 2-10 should be allowed at least by virtue of their dependency.

One object of the present invention is to provide a device and method for detecting an abnormality of a rotating body (such as a tire), which can prevent (in an early stage) an accident from occurring such as, for example, a tire burst or separation of a tread. See paragraph [0005] of the specification.

In a preferred embodiment, the invention extracts a signal synchronized with rotation of a rotating body (e.g., a tire) for use in determining a condition of the tire (such as, for example, signals indicative of sounds or vibrations), and signals having no correlation with the tire rotation (such as, for example, signals indicative of running over a stone) are excluded, e.g., by means of an adaptive filter. See, for example, paragraphs [0013] and [0022] of the specification.

Brown relates to a tire monitoring system. The Examiner refers to paragraphs [0010] and [0012] as allegedly disclosing an adaptive filter like that in claim 1 of the instant application. However, Brown’s filter does not extract a signal that is synchronized with rotation of the tire. Rather, Brown senses pressures and temperatures and filters the results over a range of speed and load conditions. There is no disclosure or suggestion in Brown for extracting signals synchronized with rotation of the tire, and also no disclosure or suggestion for excluding signals that have no correlation with the tire rotation. It appears that the Examiner simply found a reference (Brown) that discloses a filter for use in a tire pressure monitoring device, but did not appreciate that the filter has little or no relevance to the apparatus/method of the present invention, perhaps because of an incomplete understanding of the present invention.

Thus, claim 1 is believed to be allowable over Brown. Likewise, claim 11 is believed to be allowable for at least the same reasons. Moreover, the other cited references clearly fail to supply the deficiencies of Brown.

Although there should be no need to address the dependent claims and their rejections in view of the deficiencies of Brown relative to claim 1 (and claim 11), please consider the following additional remarks.

Regarding the rejection of claim 11 in view of Brusarosco, it appears that the Examiner did not consider the features from claim 1, as a result of the objection to the form of claim 11. The foregoing amendments to claim 11 should cure that problem. Moreover, the Examiner did not even allege that Brusarosco teaches excluding signals having no correlation with tire rotation, which is probably because the reference actually fails to provide such a teaching. In fact, this reference does not appear to even teach extracting a signal synchronized with tire rotation. See, e.g., paragraph [0017] of Brusarosco. The reference simply derives a tire load from amplitude, rotation speed and inflation pressure. Also, paragraph [0019] does not appear to teach detecting an abnormality using the extracted signal. Rather, it is just an explanation of how to estimate a rotation speed and inflation pressure corresponding to a radial deformation.

Finally, regarding the rejection of claims 3-10 over Brown in view of Brusarosco, neither Brown nor Brusarosco are pertinent for the reasons explained above, and their combination is no more pertinent to the present invention as recited in claims 1 and 11.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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